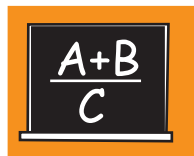


Functional Independence

Fall 2013



Mathematics

Item Descriptors

Grade 8

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DIRECTIONS: Read each question. Choose the **BEST** answer for each question.

NOTE: For each item listed throughout this booklet, the first statement is a summary of the Michigan Extended Grade Level Content Expectation (EGLCE) and the second statement or problem is the descriptor for the item's stem or question.

- 1 N.MR.07.FI.EG07:** Find the next number in a simple repeating pattern

Describe rule to find number in decreasing skip-counting pattern

- A** decreasing, but under by 1
- B** correct
- C** decreasing, but over by 1

- 2 N.ME.07.FI.EG03:** Express numbers to 100,000 using place value

Identify number in given place value

- A** numeral in greater place value location
- B** correct
- C** numeral in less place value location

- 3 N.ME.07.FI.EG01:** Read, write, and count using whole numbers to 100,000

Translate word form of number to standard form

- A** incorrect in tens place
- B** correct
- C** incorrect in hundreds place

- 4 N.ME.07.FI.EG04:** Compare and order numbers to 100,000

Identify number greater than given number

- A** correct
- B** less than given number
- C** less than given number

5 N.ME.07.FI.EG05: Round whole numbers

Round number in thousands to nearest hundred

- A** 200 less than correct number
- B** rounded number over 50 down, i.e., 100 less than correct number
- C** correct

6 M.UN.07.FI.EG11: Use equivalent calendar units

Translate years into months

- A** 1 year = 6 months
- B** correct
- C** 1 year = 18 months

7 A.FO.07.FI.EG01: Solve applied problems involving rates

Calculate total distance given rate and time

- A** correct
- B** under by 20 miles
- C** rate + time

8 N.ME.07.FI.EG15: Recognize, name, represent, and write commonly used unit fractions

Identify shaded figure

- A** correct
- B** too much shading
- C** not enough shading

9 M.UN.07.FI.EG08: Measure perimeter

Calculate perimeter of rectangle given lengths of four sides

- A** correct
- B** 4 times the width
- C** 4 times the length

10 M.UN.07.FI.EG07: Understand circumference

Identify characteristic of circle

- A** incorrect characteristic of circle
- B** incorrect characteristic of circle
- C** correct

- 11 N.ME.07.FI.EG16:** Place 0 and halves on a number line

Identify measurement shown on ruler

- A** did not include fractional portion of measurement
- B** correct
- C** one inch greater

- 12 G.LO.07.FI.EG03:** Read, interpret, and use maps and grids with legends

Follow directions to find location

- A** incorrect location
- B** incorrect location
- C** correct

- 13 M.UN.07.FI.EG01:** Select and use standard tools for measurement

Identify tool used to measure time

- A** tool used to measure weight
- B** correct
- C** tool used to measure length

- 14 D.RE.07.FI.EG01:** Read data from charts, tables, graphs, tallies, and pictographs

Identify minimum on bar graph

- A** maximum
- B** correct
- C** neither minimum nor maximum

- 15 M.UN.07.FI.EG09:** Convert units of measure

Convert feet to inches given 1 foot = 12 inches

- A** subtracted feet from inches
- B** added feet to inches
- C** correct

- 16 M.UN.07.FI.EG10:** Tell time on a radial or digital clock to the nearest half-hour

Tell time on analog clock

- A** half hour earlier
- B** correct
- C** hour later

- 17 N.MR.07.FI.EG06:** Create, describe, and extend simple number patterns

Find next number in skip-counting pattern given in table

- A** added 1 to previous number
- B** correct
- C** sum of all numbers in table

- 18 D.RE.07.FI.EG04:** Solve problems using data in tables, graphs, tallies, and pictographs

Calculate total from table

- A** mode
- B** 10 fewer than total
- C** correct

- 19 M.UN.07.FI.EG03:** Measure and compare integer temperatures

Identify warmest temperature

- A** coolest
- B** neither warmest nor coolest
- C** correct

- 20 D.RE.07.FI.EG03:** Describe the shape of data using informal language

Describe data in line graph

- A** correct
- B** opposite trend
- C** incorrect trend

- 21 G.LO.07.FI.EG03:** Read, interpret, and use maps and grids with legends

Interpret map

- A** correct
- B** incorrect direction
- C** opposite direction

- 22 G.LO.07.FI.EG02:** Find and name locations using simple coordinate systems

Interpret grid to name location

- A** correct
- B** incorrect location
- C** incorrect location

- 23 A.FO.07.FI.EG02:** Represent information using algebra

Translate multiplication word problem into number sentence

- A** addition sentence
- B** division sentence
- C** correct

- 24 N.MR.07.FI.EG24:** Select appropriate numbers to solve problems

Add in context

- A** incorrect total
- B** incorrect total
- C** corrected

- 25 M.PS.07.FI.EG15:** Add and subtract money in dollars and cents

Subtract money in decimal form in context

- A** correct
- B** subtracted smaller values from larger values with dollars
- C** added

- 26 M.UN.07.FI.EG13:** Recognize equivalent sets of coins and bills

Recognize equivalent set of coins

- A** over by 1 dime
- B** correct
- C** nickel instead of quarter

- 27 N.MR.07.FI.EG10:** Solve simple open sentences

Multiply two 1-digit numbers

- A** added
- B** used one incorrect factor
- C** correct

- 28 N.MR.07.FI.EG21:** Multiply fractions by whole numbers

Identify equivalent expression to multiplying a whole number by a unit fraction

- A** correct
- B** $a \times 1/b = a + a + \dots + a$ (b addends)
- C** $a \times 1/b = a + 1/b + \dots + a + 1/b$ (b addends)

29 N.ME.07.FI.EG20: Understand sum of unit fractions

Add three unit fractions

- A** $1/x + 1/x + 1/x = 1/x$
- B** $1/x + 1/x + 1/x = 3/(3x)$
- C** correct

30 N.ME.07.FI.EG22: Use decimal fractions up to 2 decimals

Translate fraction in context to decimals

- A** one-tenth of correct decimal
- B** correct
- C** ten times correct decimal

31 N.FL.07.FI.EG13: Calculate simple products

Multiply two 2-digit numbers

- A** added
- B** used one incorrect factor
- C** correct

32 N.MR.07.FI.EG25: Solve applied problems

Multiply two 2-digit numbers

- A** under by 20
- B** correct
- C** over by 5

33 N.FL.07.FI.EG23: Apply estimation in solving problems

Estimate subtraction in context

- A** overestimate
- B** overestimate
- C** correct

34 N.FL.07.FI.EG13: Calculate simple products

Multiply or use repeated addition in word problem

- A** used incorrect factor (or did not include one addend)
- B** under by 5
- C** correct

35 M.PS.07.FI.EG12: Solve one- or two-step word problems

Determine time elapsed in context

- A** correct
- B** over by 1 hour
- C** over by 2 hours





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